

## CLAIMS

1. A crosslinkable high pressure polyethylene composition containing ethylene silane copolymer resin having a content of silane of about 0.1 to 10 weight% and at least one silanol condensation catalyst, characterised in that the density of the composition is >928 kg/m<sup>3</sup>.
2. A crosslinkable high pressure polyethylene composition according to claim 1, wherein the density of the composition is >933 kg/m<sup>3</sup>.
3. A crosslinkable high pressure polyethylene composition according to claim 2, wherein the ethylene silane copolymer resin is an ethylene-vinyltriethoxysilane copolymer, an ethylene-gamma-methacryloxytriethoxysilane copolymer, an ethylene- vinyltrimethoxysilane copolymer or an ethylene-gamma-trimethoxysilane copolymer resin, preferably an ethylene- vinyltrimethoxysilane copolymer resin.
4. A crosslinkable high pressure polyethylene composition according to claim 3, wherein the ethylene- vinyltrimethoxysilane copolymer resin further comprises high density polyethylene in an amount of <40 weight%.
5. A crosslinkable high pressure polyethylene composition according to claim 4, wherein the amount of high density polyethylene is 15-35 weight%, preferably 20-30 weight%.
6. A crosslinkable high pressure polyethylene composition according to any of claims 1-5, wherein the MFR<sub>2</sub> at 190°C/2.16 kg is 0.1-100 g/10 min, more preferably 0.5-6 g/10 min and most preferably 1-4 g/10 min.
7. A crosslinkable high pressure polyethylene composition according to any of claims 1-6, wherein the elongation at break is >200% as measured according to ISO 527.
8. A crosslinkable high pressure polyethylene composition according to any of claims 1-7, wherein the ten-

sile strength at break is >12.5 MPa as measured according to ISO 527.

9. A crosslinkable high pressure polyethylene composition according to any of claims 1-8, wherein the gel 5 content is >65 weight% as measured according to ASTM D 2765.

10. A crosslinkable high pressure polyethylene composition according to any of claims 1-9, wherein the polyethylene composition further comprises 0.1-2.0 weight% of a drying agent.

11. A process for the preparation a crosslinkable polymer composition according to any of claims 1-10 characterised in that the process is a high pressure process at a pressure above 1200 bar.

15. 12. A process according to claim 11, wherein the polymer composition is crosslinked in the presence of a silanol condensation catalyst comprising a compound of formula (I):

20.  $\text{ArSO}_3\text{H}$  (I)

or a precursor thereof, Ar being a hydrocarbyl substituted aromatic group comprising at least 14 carbon atoms.

25. 13. A process according to claim 11, wherein the polymer composition is crosslinked in the presence of a silanol condensation catalyst, preferably dibutyl-tin-dilaurate.

30. 14. A pipe made of a crosslinkable polymer composition according to any of claims 1-10.

15. A pipe according to claim 14, wherein the pressure resistance at 95°C is at least 2.8 MPa, more preferably 3.6 MPa and most preferably 4.4 MPa for a failure time of at least more than 1000 hours.

35. 16. Use of a crosslinkable polymer composition according any of claims 1-10 as an insulation for a cable.